# **Searching PAJ**

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Search Results: 188 Index Indication Clear
Text Search  If you want to conduct a Number Search, please click on the button to the right.  Number Search
Applicant, Title of invention, Abstract e.g. computer semiconductor
f you use the AND/OR operation, please leave a SPACE between keywords.  One letter word or <u>Stopwords</u> are not searchable.
piezoelectric electrostrictive piezoceramic electromechanical
AND
lamination laminated laminations laminating plies stack layers layered OR
AND
"breakage layer" AND ▼
AND
Date of publication of application e.g.19980401 - 19980405
AND
PC e.g. D01B7/04 A01C11/02
you use the OR operation, please leave a SPACE between keywords.
<b>₩</b>
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#### **RESULT LIST**

**0** results found in the Worldwide database for: **piezoelectric or electrostrictive or capacitor** in the title AND **breakage near layer** in the title or abstract (Results are sorted by date of upload in database)

Data supplied from the esp@cenet database - Worldwide

#### RESULT LIST

12 results found in the Worldwide database for:

piezoelectric or electrostrictive or capacitor in the title AND crack\* near layer in the title or abstract
(Results are sorted by date of upload in database)

#### 1 PIEZOELECTRIC/ELECTROSTRICTIVE DEVICE

Inventor: IKEDA KOJI; SHIBATA KAZUYOSHI

Applicant: NGK INSULATORS LTD

EC: H01L41/09G; H01L41/24

IPC: H01L41/083; H01L41/09; H01L41/187 (+14)

Publication info: JP2005072113 - 2005-03-17

### 2 LAMINATED PIEZOELECTRIC ELEMENT, MANUFACTURING METHOD

THEREFOR, AND JETTING DEVICE

Inventor: SETOGUCHI TAKESHI

Applicant: KYOCERA CORP

EC:

IPC: H01L41/083; H01L41/09; H01L41/22 (+6)

Publication info: JP2002289932 - 2002-10-04

#### 3 CONTAINER FOR HOUSING PIEZOELECTRIC VIBRATOR

Inventor: TAKATO TATSUJI

Applicant: KYOCERA CORP

EC:

IPC: H01L23/02; H03H9/02; H03H9/10 (+6)

Publication info: JP2002198767 - 2002-07-12

### 4 METHOD OF PRODUCING ELECTRIC DOUBLE LAYER CAPACITOR

Inventor: SHIMIZU YASUSHIGE; NAKAO KEIICHI

Applicant: MATSUSHITA ELECTRIC IND CO LTD

EC:

IPC: H01G9/058; H01G13/00; H01G9/058 (+3)

Publication info: JP11329911 - 1999-11-30

### 5 PIEZOELECTRIC ELEMENT AND INK JET-TYPE RECORDER HEAD

USING THE SAME

Inventor: OKA HIROSHI; SUMI KOJI

Applicant: SEIKO EPSON CORP

EC:

IPC: **B41J2/045**; **B41J2/055**; **H01L41/09** (+9)

Publication info: JP11214762 - 1999-08-06

#### 6 CAPACITOR AND ITS MANUFACTURING METHOD

Inventor: UNAMI KIYOSHI; SUZUKI KIYUUJI; (+1)

Applicant: MATSUSHITA ELECTRIC IND CO LTD

EC:

IPC: H01G4/18; H01G4/14; (IPC1-7): H01G4/18

Publication info: JP10261541 - 1998-09-29

### 7 LAMINATED PIEZOELECTRIC ACTUATOR ELEMENT AND MANUFACTURING METHOD THEREOF

Inventor: KATOU TOMOYOSHI

Applicant: CHICHIBU ONODA CEMENT CORP

EC:

IPC: H01L41/083; H01L41/22; H01L41/083 (+3)

Publication info: JP9270540 - 1997-10-14

#### 8 MANUFACTURE OF SOLID ELECTROLYTIC CAPACITOR

Inventor: NISHIYAMA SUMIO; KOBASHI YASUHIRO;

Applicant: MATSUSHITA ELECTRIC IND CO LTD

(+1)

EC:

IPC: H01G9/032; H01G9/02; H01G9/022 (+2)

**Publication info: JP3178114** - 1991-08-02

#### 9 LAMINATED PIEZOELECTRIC ELEMENT

Inventor: SOMETSUGU TAKAHIRO; WATANABE

Applicant: HITACHI METALS LTD

JUNICHI; (+1)

EC:

IPC: H01L41/083; H01L41/09; H01L41/083 (+2)

Publication info: JP2237083 - 1990-09-19

#### 10 ELECTROSTRICTIVE EFFECT ELEMENT

Inventor: UCHIUMI KAZUAKI; OCHI ATSUSHI; (+1)

Applicant: NIPPON ELECTRIC CO

EC: H01L41/083

IPC: H01L41/083; H01L41/083; (IPC1-7):

H01L41/08

Publication info: **JP1164080** - 1989-06-28





#### **IP SERVICES**



IP Services PatentScope

Patent Search

Results of searching in PCT for:

( piezoelectric or electrostrictive or electromechanical or capacitor ) near ( laminat\* or plies or stack\* or layer\* ) and ( crack\* or break\* ) near layer\*: 108 records Showing records 1 to 25 of 108:

[Search Summary]

Next 25 records

Start At

Refine Search

(piezoelectric or electrostrictive or electromechanical or

RSS 3

Title

Int. Class

**Applicant** 

1. (WO 2007/040671) COG DIELECTRIC COMPOSITION FOR USE WITH COPPER ELECTRODES

12.04.2007 H01G 4/06

FERRO CORPORATION

Multilayer ceramic chip capacitors which satisfy COG requirements and which are compatible with reducing atmosphere sintering conditions so that non-noble metals such as copper and copper alloys thereof may be used for internal and external electrodes are made in accordance with the invention. The capacitors exhibit desirable dielectric properties (high capacitance, low dissipation factor, high insulation resistance), excellent performance on highly accelerated life testing, and very good resistance to dielectric breakdown. The dielectric layers comprise a composite oxide formed by calcining rare earth titanates, barium titanate, together with other metal oxides such as MgO, CaO, ZnO, MnO2, ZrO2, SiO2, Ga2O3, Nd2O3, Nb2O5, and Y2O3,

2. (WO 2007/037973) COG DIELECTRIC COMPOSITION FOR USE WITH NICKEL ELECTRODES

05.04.2007 C03C 3/14

Pub. Date

FERRO CORPORATION

Multilayer ceramic chip capacitors which satisfy COG requirements and which are compatible with reducing atmosphere sintering conditions so that non-noble metals such as nickel and nickel alloys thereof may be used for internal and external electrodes are made in accordance with the invention. The capacitors exhibit desirable dielectric properties (high capacitance, low dissipation factor, high insulation resistance), excellent performance on highly accelerated life testing, and very good resistance to dielectric breakdown. The dielectric layers comprise a strontium ztrconate matrix doped with other metal oxides such as TiO2, MgO, B2O3, CaO, A12O3 SiO2, and SrO in various combinations. Figure 1 is a cross-sectional view of a multilayer cera...

3. (WO 2007/024038) ELECTRO ACTIVE MATERIAL ACTUATOR EMBEDDED WITH INTERDIGITATED **ELECTRODES** 

01.03.2007 H01L 41/08

KONKUK UNIVERSITY INDUSTRIAL COOPERATION CORP.

Disclosed is an actuator of electroactive material. The electroactive actuator (100) comprises: a thin film EAM layer (110); electrodes (120a and 120b) embedded in the EAM layer (110) and including a plurality of interdigitated electrodes (122a and 122b); and polymer layers (130a and 130b) deposited on the upper and lower surfaces of the EAM layer 110; wherein the interdigitated electrodes 122a and 122b are opposite each other in an interdigitated arrangement. In the disclosed actuator, an actuation effect several times higher than that of the prior art can be obtained using the interdigitated electrodes. Particularly when a single crystal piezoelectric material is used, the actuation effect can be further increased.

4. (WO 2007/008986) METHOD AND APPARATUS FOR SCALABLE DROPLET EJECTION MANUFACTURING

18.01.2007 B41J 2/05

FUJIFILM DIMATIX, INC.

A method includes ejecting liquid having a first composition from a first droplet ejection deposition system that includes a first printhead and a first fluid source, collecting information on the behavior of the liquid under a variety of ejection conditions for the first droplet ejection deposition system, and ejecting liquid having the first material composition from a second droplet ejection deposition system that includes a second printhead and a second fluid source under the selected ejection conditions. The first printhead has a small number of flow paths, and the first fluid source is configured to hold a small volume of liquid. The second printhead has a plurality of substantially identical flow paths, each of the flow paths being s...

5. (WO 2006/135495) PARTICLE PACKAGING SYSTEMS

21.12.2006 H01M 4/62

MAXWELL

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Search Results: 126 Index Indication	Clear
Text Search If you want to conduct a Number Search, please click on the button to the right.	Number Search
Applicant, Title of invention, Abstract e.g. computer semiconde	uctor
If you use the AND/OR operation, please leave a SPACE between keywords. One letter word or Stopwords are not searchable.	
piezoelectric electrostrictive electromechanical	OR ▼
AND lamination laminated plies stack laminations	OR. ▼
AND	
crack layer	AND ▼
AND	•
Date of publication of application e.g.19980401 - 19980405	
AND	
IPC e.g. D01B7/04 A01C11/02	
If you use the OR operation, please leave a SPACE between keywords.	
Search Stored data	

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Search Resul	ts: 25 Index Indication	Clear
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Text Search If you want to	conduct a Number Search, please click or the button to the right	M C
Applicant, Title of inven	tion,Abstract e.g. computer semice	onductor
If you use the AND/OR operation,	please leave a SPACE between keywords.	
One letter word or Stopwords are	not searchable.	
piezoelectric electrostrictive	e electromechanical	OR 🔻
	AND	,
lamination laminated plies	stack laminations	OR 🔻
	AND	
tensile stress		AND ▼
	AND	
Date of publication of a	<b>pplication</b> e.g.19980401 - 19980409	5
	AND	
IPC e.g. D01B7/04 A01C11/0	2	
If you use the OR operation, pleas	e leave a SPACE between keywords.	
	Search Stored data	a

	Туре	L #	Hits	Search Text	DBs	Time Stamp	Comment
1	BRS	L1	340	same (stress or strain)	US- PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWE NT; IBM_T DB	2007/04/1 6 10:50	
2	BRS	L2	1	"20060055288"		2007/04/1 6 08:55	
3	IS&R	L3	5	(("5200373") or ("6208026") or ("6798123") or ("6765337") or ("5835338")).PN.	USPAT	2007/04/1 6 09:15	
4	BRS	L4	10	(piezoelectric or electrostrictive or electromechanical) adj3 (plies or laminated or laminations or stack) same stress same crack\$3		2007/04/1 6 09:13	

	Туре	L	#	Hits	Search Text	DBs	Time Stamp	Comment
5	BRS	L5		11	adj3 (plies or laminated or laminations or stack) same stress\$3 same crack\$3		2007/04/1 6 09:14	
6	BRS	L6		1	15 not 14		2007/04/1 6 09:14	
7	BRS	L7		5	"5200373".uref.	USPAT	2007/04/1 6 09:16	
8	BRS	L8		7	"6208026".uref.	USPAT	2007/04/1 6 09:18	
9 ·	BRS	L9		0	"6798123".uref.	$\Pi \cup D \Delta \cap \Box$	2007/04/1 6 09:18	
10	BRS	L10	)	1	"6765337".uref.	11 12 0 4 1	2007/04/1 6 09:19	
11	BRS	L11		5	"5835338".uref.	USPAT	2007/04/1 6 09:19	

	Туре	L #	Hits	Search Text	DBs	Time Stamp	Comment
12	BRS	L12	1/ 3	(piezoelectric or electrostrictive or electromechanical) adj3 (plies or laminated or laminations or stack) same (stress or strain) and spacer	1	2007/04/1 6 10:01	
13	BRS	L13	15	capacitor adj3 (plies or laminated or laminations or stack) same (stress or strain) and crack\$3		2007/04/1 6 09:38	
14	BRS	L14	in i	gesemann-hans- juergen.in.		2007/04/1 6 10:02	-

	Туре	L #	Hits	Search Text	DBs	Time Stamp	Comment
15	BRS	L15	16		US- PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWE NT; IBM_T DB	2007/04/1 6 10:03	
16	BRS	L16	5	(piezoelectric or electrostrictive or electromechanical) adj3 (plies or laminated or laminations or stack) same (stress adj2 layer)		2007/04/1 6 10:53	·
17	BRS	L17	1	(piezoelectric or electrostrictive or electromechanical) adj3 (plies or laminated or laminations or stack) same stress and (break\$3 or crack\$3) adj2 layer	1	2007/04/1 6 10:53	